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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Allocation of Spectrum in the 5 GHz Band To Establish a Wireless Component of the National Information Infrastructure	)	RM-8653
	)	
	)	
In the Matter of	)	
	)	
Petition for Rulemaking to Allocate the 5.1 - 5.35 GHz Band and Adopt Service Rules for a Shared Unlicensed Personal Radio Network	)	RM-8648
	)	
	)	
	)	

COMMENTS OF DEWAYNE HENDRICKS

I wish to submit these comments to the petition for rulemaking filed by Apple Computer, Inc. ("NII Band Petition"), and by the Wireless Information Networks Forum ("WINForum Petition), in the above referenced matters. I am filing as an individual and a long time member of the amateur radio service (ARS). I strongly support the NII Band Petition and urge the Commission to take the necessary actions necessary to make this proposal a reality as soon as possible.

The ARS began with a few experimenters in the early 1900s and has grown to more than 700,000 licensed operators in the United States alone. Amateur Radio represents principles of radio communications that have endured and advanced since the days of the earliest radio pioneers. Part 97 of the Commission's rules sums it up the best by stating these principles [97.1 (a) (b)]:

> *Recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications.*
>
> *Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art.*

For more than eighty years, hams have carried on a tradition of learning by doing, and since the beginning have remained at the forefront of technology. Through experimenting and building, hams have pioneered advances, such as techniques for single sideband (SSB) transmissions, and are currently engaged in state-of-the art designs in packet radio and spread-spectrum technologies. Hams' practical experience has led to technical refinements and cost reductions beneficial to the commercial radio industry.

Over the years, it has been the Commission's obligation to see that the rules that regulate the ARS allow room for amateurs to move in new directions so they can live up to their potential for advancing technical and communications skills. The ARS is constantly changing to meet the new challenges brought forth by new technologies, and dynamic and flexible rules as embodied in Part 97 provide for this.

In my opinion, the NII Band petition represents a way for the general public to participate in this communications revolution that has been exclusive playing field of the ARS for so many years. It is now up to the Commission to craft and create a new service that incorporates the principles and experience of the ARS, with the innovative guidelines proposed by Apple in its petition. Doing so would create a new service where communications and computing technologies will be available without regard to geography, income level, educational level, or organizational size to everyone in the United States. In particular, schools, colleges and universities must have access to advanced communications and computing technologies if they are to prepare our students to participate fully in, and contribute to, tomorrow's information-based economy. The recent recognition of the growth of the world-wide Internet has brought home to many that there is an increasing requirement for access to technologies that are broadband (capable of supporting, for example, videoconferencing and multimedia applications), flexible (capable of being used efficiently to maximize the benefits of limited resources), and affordable (capable of being installed and used on the budgets available to the average American).

If our society's communications needs are ever to be fulfilled, new options must be explored. One such option of note is the Part 15 unlicensed service. Since the rules for this service went into effect in 1985, the success of Part 15 unlicensed technologies has far exceeded the early expectations of many. Today, we see a market for these technologies that is comprised of millions of devices, hundreds of applications, scores of different technologies, and an untold number of dollars in investment. The experience that we all have seen with this service should serve as a useful platform to use for building the new NII Band.

As Apple notes in its petition there are problems with the Part 15 service as it is now. The unlicensed technologies are subject to certain constraints that will inhibit them from satisfying the growing need for wireless communications services. Under the Commission's rules, these devices must not cause interference to other non-Part 15 users of the spectrum that they share and they are not themselves protected from interference. As a result, many advanced applications, and those requiring extremely high reliability, have so far remained tethered to wireline services. As these technologies become more sophisticated and ubiquitous, this lack of interference protection will become more critical. This condition calls all the more for the creation of the NII Band which I feel will address most of the problems of today's Part 15 unlicensed service and provide a workable solution.

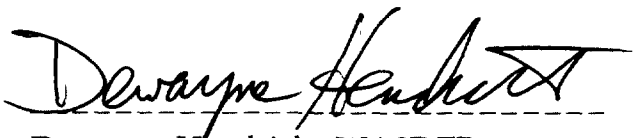
As I have said, the rules governing the operation of the NII Band should be broad enough to encompass a wide variety of wireless devices. While very high speed devices may be necessary for the implementation of certain technologies and communications methods, their use in the NII Band should not be required so as to foreclose the band to other technologies. For this reason, I feel that the petition filed by Apple is far superior to that of WINForum. It appears to me that the WINForum petition favors rules that will restrict the technologies used in the NII Band towards the European HIPERLAN standards. In my opinion, the Apple petition proposes an allocation and usage approach that while accommodating the requirements of HIPERLAN, would also foster the development of new and more innovative technologies. Further, the rules proposed by Apple would assure that all devices retain an equitable right to access and share the spectrum resources. Such equitable

access is necessary for at least two reasons. First, service rules that favor certain configurations or technologies will bias future development efforts towards those configurations and technologies and will therefore limit the scope of innovations possible in this band. If any one type of transmission method is given priority in the band, then many of the advantages of this new service will be lost. Experience in the Part 15 bands clearly demonstrates that technology will adapt to the spectrum environment as it finds it. As long as the service rules provide for an even "playing field", a multitude of different services using this band will thrive and any artificial regulatory "slights of hand" by the Commission will be unnecessary.

In conclusion, it is my feeling that the NII Band petition provide the basis for a great public experiment which if successful will provide one of the cornerstones for the proposed National Information Infrastructure (NII). The important principles embodied in the Apple petition should guide the Commission in creating an NII Band, particularly if it is to employ spectrum at 5725-5875 MHz in which both Part 15 and ARS technologies are currently being developed and deployed. The combination of adequate spectrum and efficient pragmatic spectrum sharing rules should create an environment in which this new service with its innovative technologies could thrive.

For the reasons stated herein, I wish to support the petition for rulemaking filed by Apple Computer, Inc.

Respectfully submitted,



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